

Appl. No. 10/033,205
Amdt. dated January 28, 2004
Reply to Office Action of October 28, 2003

Amendments to the Claims:

The below listing of claims will replace all prior versions, and listings, of claims in the application. Support for the amendments to independent claims 1 and 18 is found, *inter alia*, in the specification on page 8, lines 7-12. Dependent claims 11 and 12 have been canceled. New independent claim 23 is added in this amendment. Support for new independent claim 23 is found, *inter alia*, in originally filed independent claim 1, in originally filed dependent claims 11 and 12, and in the specification on page 2, lines 12-13; page 3, line 23, to page 4, line 3; page 7, lines 9-16; and page 11, lines 18-21. No new matter has been added.

Listing of Claims:

Claim 1 (currently amended): A golf ball component selected from the group consisting of a ~~core~~, a cover[[.]] and an intermediate layer located between a golf ball core and a cover, the golf ball component comprising:

- (a) a triblock copolymer having:
 - (i) a first polymer block comprising an aromatic vinyl compound,
 - (ii) a second polymer block including a first compound selected from the group consisting of a diene compound and a hydrogenation product of the diene compound,
 - (iii) a third polymer block including a second compound selected from the group consisting of a diene compound, a hydrogenation product of the diene compound, and an aromatic vinyl compound, and
 - (iv) at least one hydroxyl group;
- (b) a base polymer; and
- (c) a polymeric modifier selected from the group consisting of:
 - (i) an impact modifier selected from the group consisting of methyl methacrylate butylacrylate styrene, methyl methacrylate ethyl hexylacrylate styrene, methacrylate-butadiene-styrene, ethylene vinyl acetate, acrylonitrile-butadiene-styrene, and chlorinated polyethylene,
 - (ii) a functionalized polymer selected from the group consisting of a copolymer and a terpolymer wherein the copolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a

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carboxylic group, and the terpolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a carboxylic group, and

(iii) mixtures of the impact modifier and the functionalized polymer.

Claim 2 (previously canceled)

Claim 3 (previously canceled)

Claim 4 (previously amended): The golf ball component as defined in claim 1, wherein the base polymer includes an ionomeric polymer selected from the group consisting of copolymeric polymers, terpolymeric polymers, and mixtures thereof.

Claim 5 (previously amended): The golf ball component as defined in claim 1, wherein the base polymer includes a non-ionomeric polymer.

Claim 6 (previously amended): The golf ball component as defined in claim 1, wherein a ratio by weight of the triblock copolymer to the base polymer ranges between about 10:90 and about 90:10.

Claim 7 (previously amended): The golf ball component as defined in claim 1, wherein a ratio by weight of the triblock copolymer to the base polymer ranges between about 10:90 and about 70:30.

Claim 8 (previously amended): The golf ball component as defined in claim 1, wherein a ratio by weight of the triblock copolymer to the base polymer ranges between about 10:90 and about 60:40.

Claim 9 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the impact modifier in an amount between about 0.1 and about 15 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 10 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the impact modifier in an amount between about 1 and about 10 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 11 (canceled)

Claim 12 (canceled)

Claim 13 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the functionalized polymer in an amount between about 0.1 and about 15 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 14 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the functionalized polymer in an amount between about 1 and about 10 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 15 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the polymeric modifier in an amount less than about 20 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 16 (previously amended): The golf ball component as defined in claim 1, wherein the golf ball component includes the polymeric modifier in an amount less than about 15 parts per hundred by weight of a total amount of the triblock copolymer and the base polymer.

Claim 17 (previously amended): The golf ball component as defined in claim 1, further comprising an ingredient selected from the group consisting of UV stabilizers, photostabilizers,

photoinitiators, co-initiators, antioxidants, colorants, dispersants, mold releasing agents, processing aids, inorganic fillers, organic fillers, and mixtures thereof.

Claim 18 (currently amended): A method for making a golf ball component selected from the group consisting of a ~~core~~, a cover[[,]] and an intermediate layer located between a golf ball core and a cover, the method comprising:

preparing a composition comprising:

(a) a triblock copolymer having:

- (i) a first polymer block comprising an aromatic vinyl compound,
- (ii) a second polymer block including a first compound selected from the group consisting of a diene compound and a hydrogenation product of the diene compound,
- (iii) a third polymer block including a second compound selected from the group consisting of a diene compound, a hydrogenation product of the diene compound, and an aromatic vinyl compound, and
- (iv) at least one hydroxyl group;

(b) a base polymer; and

(c) a polymeric modifier selected from the group consisting of:

(i) an impact modifier selected from the group consisting of methyl methacrylate butylacrylate styrene, methyl methacrylate ethyl hexylacrylate styrene, methacrylate-butadiene-styrene, ethylene vinyl acetate, acrylonitrile-butadiene-styrene, and chlorinated polyethylene,

(ii) a functionalized polymer selected from the group consisting of a copolymer and a terpolymer, wherein the copolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a carboxylic group, and the terpolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a carboxylic group, and

(iii) mixtures of the impact modifier and the functionalized polymer; and incorporating the composition into the golf ball component.

Claim 19 (previously amended): The method as defined in claim 18, wherein the step of preparing a composition comprises a step of dry-blending the composition.

Claim 20 (previously amended): The method as defined in claim 18, wherein the step of preparing a composition comprises a step of mixing the composition using a device selected from the group consisting of a mill, an internal mixer, and an extruder.

Claim 21 (previously amended): The method as defined in claim 20, wherein the step of mixing the composition comprises melting the composition.

Claim 22 (previously canceled)

Claim 23 (new): A golf ball comprising:

- (A) a core; and
- (B) an outer cover layer; and optionally
- (C) one or more intermediate layers located between the core and the outer cover

layer; and

wherein the outer cover layer, and/or the one or more intermediate layers if present, comprises a blend of:

- (a) a triblock copolymer having:
 - (i) a first polymer block comprising an aromatic vinyl compound,
 - (ii) a second polymer block including a first compound selected from the group consisting of a diene compound and a hydrogenation product of the diene compound,
 - (iii) a third polymer block including a second compound selected from the group consisting of a diene compound, a hydrogenation product of the diene compound, and an aromatic vinyl compound, and
 - (iv) at least one hydroxyl group;
- (b) a base polymer; and
- (c) a polymeric modifier selected from the group consisting of:

(i) an impact modifier selected from the group consisting of methyl methacrylate butylacrylate styrene, methyl methacrylate ethyl hexylacrylate styrene, methacrylate-butadiene-styrene, ethylene vinyl acetate, acrylonitrile-butadiene-styrene, and chlorinated polyethylene,

(ii) a functionalized polymer selected from the group consisting of a copolymer and a terpolymer wherein the copolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a carboxylic group, and the terpolymer includes an end group selected from the group consisting of a glycidyl group, a hydroxyl group, a maleic anhydride group, and a carboxylic group, and

(iii) mixtures of the impact modifier and the functionalized polymer.